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PROSECUTION OF THE SUBJECT APPLICATION

Applicants: N.B. Cobb et al.

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Application No.: 10/698,596

Group Art Unit: ~~1756~~ 2825

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Title: SITE CONTROL FOR OPC

U.S. PATENT DOCUMENTS

*Examiner Initials	Cite No.	Document No.	Kind Code	Date (mm/dd/yyyy)	Name
<u>IS</u>	U1	4,762,396		08/09/1988	Dumant et al.
	U2	5,502,654		03/26/1996	Sawahata
	U3	5,655,110		08/05/1997	Krivokapic et al.
	U4	5,723,233		03/03/1998	Garza et al.
	U5	5,825,647		10/20/1998	Tsudaka
	U6	5,879,844		03/09/1999	Yamamoto et al.
	U7	6,016,357		01/18/2000	Neary et al.
	U8	6,049,660		04/11/2000	Ahn et al.
	U9	6,077,310		06/20/2000	Yamamoto et al.
	U10	6,120,952		09/19/2000	Pierrat et al.
	U11	6,128,067		10/03/2000	Hashimoto
	U12	6,187,483	B1	02/13/2001	Capodieci et al.
	U13	6,243,855	B1	06/05/2001	Kobayashi et al.
	U14	6,249,904	B1	06/19/2001	Cobb
	U15	6,263,299	B1	07/17/2001	Aleshin et al.
	U16	6,269,472	B1	07/31/2001	Garza et al.
	U17	6,301,697	B1	10/09/2001	Cobb
	U18	6,370,679	B1	04/09/2002	Chang et al.
	U19	6,425,117	B1	07/23/2002	Pasch et al.
<u>US</u>	U20	6,453,452	B1	09/17/2002	Chang et al.

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>LLC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

<u>VS</u>	U21	6,453,457	B1	09/17/2002	Pierrat et al.
<u>VS</u>	U22	6,467,076	B1	10/15/2002	Cobb
<u>VS</u>	U23	6,499,003	B2	12/24/2002	Jones et al.

### FOREIGN PATENT DOCUMENTS

*Examiner Initial	Cite No.	Document No.	Kind Code	Publication Date (mm/dd/yyyy)	Country	English Abstract Provided	Translation Provided
<u>VS</u>	F1	09319067	A	12/12/1997	JP	x	
<u>VS</u>	F2	WO 01/65315	A2	09/07/2001	WO		

### OTHER INFORMATION

(Including Author, Title, Date, Pertinent Pages, Etc.)

*Examiner Initial	Cite No.	
<u>VS</u>	O1	Cobb, N., and Y. Granik, "Model-Based OPC Using the MEEF Matrix," <i>Proceedings of SPIE, Vol. 4889: 22nd Annual BACUS Symposium on Photomask Technology</i> , Monterey, Calif., Sept. 30-Oct. 4, 2002, p.147.
	O2	Cobb, N., and A. Zakhor, "Experimental Results on Optical Proximity Correction With Variable Threshold Resist Model," <i>Proceedings of SPIE, Vol. 3051: Symposium on Optical Microlithography X</i> , Santa Clara, Calif., Mar. 10-14, 1997, pp. 458-468.
	O3	Cobb, N., and A. Zakhor, "Fast, Low-Complexity Mask Design," <i>Proceedings of SPIE, Vol. 2440: Symposium on Optical/Laser Microlithography VIII</i> , Santa Clara, Calif., Feb. 22-24, 1995, pp. 313-327.
	O4	Cobb, N., and A. Zakhor, "Fast Sparse Aerial Image Calculation for OPC," <i>Proceedings of SPIE, Vol. 2621: 15th Annual BACUS Symposium on Photomask Technology and Management</i> , Santa Clara, Calif., Sept. 20-22, 1995, pp. 534-545.
<u>VS</u>	O5	Cobb, N., and A. Zakhor, "Large Area Phase-Shift Mask Design," <i>Proceedings of SPIE, Vol. 2197: Symposium on Optical/Laser Microlithography VII</i> , San Jose, Calif., March 2-4, 1994, pp. 348-360.

LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>PC</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100

- VS
- O6 Cobb, N., et al., "Mathematical and CAD Framework for Proximity Correction," *Proceedings of SPIE, Vol. 2726: Symposium on Optical Microlithography IX*, Santa Clara, Calif., March 13-15, 1996, pp. 208-222.
- O7 Cobb, N., and Y. Granik, "Using OPC to Optimize for Image Slope and Improve Process Window," (Nov. 20, 2002), *Proceedings of SPIE, Vol. 5130: Photomask Japan*, Yokohama, Japan, April 16-18, 2003, p. 42.
- O8 Granik, Y., "Generalized MEEF Theory," *Interface 2001*, November 2001.
- O9 Granik, Y., and N. Cobb, "MEEF as a Matrix," *Proceedings of SPIE, Vol. 4562: 21st Annual BACUS Symposium on Photomask Technology*, Monterey, Calif., Oct. 2-5, 2001, pp. 980-991.
- O10 Granik, Y., and N. Cobb, "Two-Dimensional G-MEEF Theory and Applications," *Proceedings of SPIE, Vol. 4754: Symposium on Photomask and Next-Generation Lithography Mask Technology IX*, Yokohama, Japan, April 23-25, 2002, pp. 146-155.
- O11 Maurer, W., et al., "Process Proximity Correction Using an Automated Software Tool," *Proceedings of SPIE, Vol. 3334: Optical Microlithography XI*, Santa Clara, Calif., Feb. 22-27, 1998, pp. 245-253.
- O12 Maurer, W., et al., "Evaluation of a Fast and Flexible OPC Package: OPTISSIMO," *Proceedings of SPIE, Vol. 2884: 16th Annual Symposium on Photomask Technology and Management*, Redwood City, Calif., Sept. 18-20, 1996, pp. 412-418.
- VS
- O13 Ohnuma, H., et al., "Lithography Computer Aided Design Technology for Embedded Memory in Logic," *Japanese Journal of Applied Physics 37(12B):6686-6688*, December 1998.

Examiner

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\*Examiner: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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LAW OFFICES OF  
CHRISTENSEN O'CONNOR JOHNSON KINDNESS<sup>SM</sup>  
1420 Fifth Avenue  
Suite 2800  
Seattle, Washington 98101  
206.682.8100